

# TECHNICAL BULLETIN

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## MARK 2 OVER-THE-SHOULDER (OTS) GAUGE HOSE

This bulletin provides information to help the technician convert a Mark 2 SCBA equipped with an Under-the-Arm (UTA) gauge to the Over-the-Shoulder gauge (OTS). It will also provide instructions to replace damaged hoses, information on the new OTS rubber gauge hose, and details regarding metal hose extensions.

I. Over-the-Shoulder Gauge Kit.

The current OTS gauge kit (P/N 980600 LP and P/N 980610 HP) includes instructions, labels, hose extension, gauge and silver shoulder strap (P/N 942234). This kit is compatible with all Mark 2 configurations, but older black strapped Mark 2 SCBA may require additional parts. Inspect the backpack before ordering the OTS Gauge Kit.

a) BACKPACKS with black harness.

1. Check the right shoulder strap buckle. If the lower strap adjustment buckle is sewn onto the shoulder strap, you will need the additional parts listed below. Proceed to step 2 before ordering your parts.

If the buckle is secured to the strap with a screw, no additional parts are needed to convert to the OTS gauge.

2. Check the mounting plate for the second stage regulator. If it has a strap and buckle sewn to it, instead of a large hole for the chest strap buckle, the substitute screw (P/N 839514) will be needed.

Parts needed, in addition to the OTS kit, when modifying old backpacks:

Buckle	P/N 942220
Screw	P/N 839511 with chest strap P/N 839514 with regulator strap
Washers	P/N 845057
Washers	P/N 845051 (2 each)
Weld Nut	P/N 941952

**NOTE:** After modifying black strapped backpacks, the right shoulder strap will be silver. This mixing of straps has been approved by NIOSH.

## II. Hose Configurations.

When replacing damaged hoses, or if a longer hose is needed, the approved configurations are as follows:

### 1. Metal Gauge Hose.

- a. The metal gauge hose is available in two sizes:

P/N 910653	26 inch	UTA
P/N 980609	34 inch	OTS

- b. Two metal gauge hose extensions are also available:

P/N 980603	8 inch
P/N 980645	11 inch

- c. The 8 inch and 11 inch extensions can be used with both metal hoses to provide added length for proper gauge visibility.

- d. When using the 26 inch hose for the OTS gauge, you need to add an 11 inch extension to properly position the gauge.

- 1) Tall people, or local needs, may require the addition of two 8 inch extensions to the 26 inch hose, or one extension to the 34 inch hose.

### 2. Rubber Gauge Hose (P/N 980612).

New Mark 2 SCBA will be equipped with a combination OTS intermediate pressure hose and a matching rubber OTS gauge hose.

- a. The rubber OTS gauge hose can be used as a replacement hose on all Mark 2 SCBA if the harness shoulder strap loop is large enough for the rubber hose. Only shoulder strap P/N 942234 can be used with the rubber hose. This silver strap has two angled webbing loops sewn to the strap.

- b. The rubber gauge hose is 37 inches long and is not approved for use with metal hose extensions.

## III. Replacement procedures.

- a. Remove the roll pins on the first stage with a 3/64 inch pin punch and a hammer. Tap gently until the pins drop out. If a punch is not available, use a #48 wire size drill bit shank. Break off the cutting edges and use the shank as a punch.

- b. Install the new hose using new roll pins.

- c. Route the hose through the left hand side of the backpack cylinder guide and over the right shoulder strap.

- d. On the upper part of the right shoulder strap there is a webbing loop. On the outside of this loop there is a small opening in the sewing.
  - 1) Metal Hose: Route the hose through the small opening and out the bottom of the loop.
  - 2) Rubber hose: Route the hose through the center of the upper hose loop.
- e. Route the hose through the lower loop.
- f. Install the lower strap adjustment buckle at an outward angle of approximately 30°. Apply a drop of green thread sealer (P/N 820454) to the buckle screw and tighten firmly.
- g. Add hose extensions. Use a small drop of blue thread sealant (P/N 820464) to secure each hose joint. Do not allow the sealant to touch the o-ring or enter the hose. Tighten firmly with pliers or wrench.
- h. Apply one drop of blue thread sealer to the gauge threads and screw it on the hose. Tighten firmly.
- i. Once the sealant dries, rotate the hose at the first stage regulator connection until the gauge faces up at the desired angle.
- j. Test the gauge and make appropriate entries on the SCBA history records.

For further information and supplementary instructions on inspection and maintenance, see Technical Bulletin #63, the Mark 2 Service Manual, and the current SURVIVAIR parts price list.